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TRUTH AND HONOR IN SCHOOL TRAINING.

MANY teachers believe, and act upon the belief, that their sole duty is to develop, discipline, and store with knowledge their pupils' minds: that the inculcation of right principles of action and the development of character, are not their business, or any part of their business. *Life-culture* is set aside by such teachers for *mind-culture*, instead of the two being carried on together. And this is done honestly, with no intentional neglect of duty.

Other teachers—and these form perhaps the larger class—find themselves in schools the working principles of which are such that the teacher has no choice; he is compelled to restrict his efforts to the intellectual culture of his pupils. And there are other schools, in high repute often for thorough discipline and scholarship—wherein great pretence is made, it may be, of giving religious instruction—yet whose machinery is such as to create a most unhealthy moral atmosphere: schools in which the constant discrepancy between promise and performance exerts as constant a corrupting influence upon the general character of the pupils.

Now the conditions of healthful school-life, not to mention life-culture, are as plain and as easily controlled as the conditions of physical health. The difficulty is, they are too little regarded, frequently too little understood by the conductors of schools. The master of Uppingham School, England, in a recent work, entitled "Education and School" (London: Macmillan & Co.), lays great stress upon these conditions, in describing what he calls "the machinery of a first-rate school:" having in mind an ideal institution for the training of boys, in which the right thing should always be done at the right time, and in the right way.

There is a double object, he insists, in school training: first, the training

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of the life ; secondly, the training of the intellect and the body : the first, setting the loving and hating on the right track ; the second, training the instrumental powers rightly.

The first can be done, he believes, only indirectly ; for the formation of character and a right spirit is only in a very slight degree capable of being made a matter of imparted knowledge. Boys or men become brave and hardy and true, not by being told to be so, but by being nurtured in a brave and hardy and true way, surrounded with objects likely to excite these feelings in a manner calculated to draw them out unconsciously : for all true feeling is unconscious in proportion to its perfection. And as there is no moment in which habits are not in process of formation, there is nothing whatever which cannot be made to bear on this process ; nothing indeed which does not of necessity bear on it. In a school, therefore, it is of the utmost importance that the whole government and machinery should, in its minutest particulars, do this by perfect truth and perfect freedom.

It follows, then, that no falseness in the government, no falseness in the working-plan, in or out of school, can make boys true. Whatever is professed must be done.

If a school professes to teach, then every boy must have his share of teaching. There must be no knowledge-scramble, or the untruth will make itself felt.

If a school professes to train, then every boy must really be known, his wants supplied, and his character consulted, or the untruth will make itself felt.

If a school professes to board boys, then every boy must find proper food and proper lodging, and no meanness ; or the untruth will make itself felt.

A sufficient number of masters, a feeling of being known and cared for, a spot free from intrusion, however small, are necessities in a good school : and the want of these, or any of the other real requirements for training and teaching properly, is a sort of acted falsehood ; for that which is professed is not done. It does not the least follow that this is the fault of the men engaged in these schools. The constitution and legal status of a very large number of schools absolutely compels this kind of imperfect system. And even where it is not the case, immemorial custom and popular opinion—at least as far as hearty support is an evidence of popular opinion—contribute to maintain such defects, and are almost as strong as law. It is not possible for the wisest or bravest men, individually, to break through the systems in which they find themselves working-units. They can but toil and toil, as they do, to make the best of it, and lament their own helplessness to do more.

But the fact remains, whatever may be the cause ; and a lower standard

of truth and efficiency must be looked for, wherever the theory of a school is at variance with its practice. It is a certainty that the continual presence of any false influence in a society must have a great effect for evil, even when the cause is not known or suspected. To train the life truly requires a thorough atmosphere of truth. Like mountain air, the lungs should expand to drink it in, and the limbs will feel the freshness: whilst a languid step and feeble breathing are too surely the consequence of living over sewers, however hidden they may be. Poison is not less poison because it is invisible, or life less life for the same reason. Good air is always invisible, and the subtle working of a great principle of life and truth can no more be caught and labelled than the virtue of the air itself. But some of the necessary conditions, in the absence of which truth cannot exist, may be laid down without difficulty.

The training of the life depends on the conditions under which the life is passed, and is affected for good or evil by everything with which the living being is brought in contact. If truth and honor are required in a school, all things must be framed in such a way as to work out the object professed with thorough truth; and any want of truth, anything that is false, will inevitably find its way into the life of the boys and taint it. And no wonder: nothing is detected so soon as inconsistency, and eyes looking upward see sharply. Those who stand low on the ladder, observe the dirt under the boots of those above them, and are apt to care little for preachments dropped down from aloft, telling them to keep clean and be good. Those who look up ought to see no dirt. Truth is required to produce truth, and when the machinery is right, and all things are working truly, truth may be fairly expected in return, and boys may be trusted, and can be trusted safely.

There is no more tendency in boys to betray their friends than there is in men; nay, far less tendency. But then who are their friends? The whole plan and practice of a school must convince the boys that they and their governors truly form one body, and that the government is their friend. The boy-idea, too commonly, has been that there are two rival powers side by side, *masters* and *boys*, with divided interests; and school-life therefore has resolved itself into a match between the two bodies, in a sort of Spartan fashion—power on the one side, endurance and cunning on the other. So the fox has never left off preying on their vitals as they stand with false appearance of innocence before their masters. And there is a sham nobility in this; if the masters are indeed their enemies, in an enemy's country all things are fair, and war knows no nice distinctions. Supposing, however, that parents love their children and send them to school because they love them, and school is therefore for a time a better place than home, and masters are men who do parents' work better than they can do it themselves, how absurd, how pitiful, this

state of warfare is—this antagonism of the boys to those whom their parents trust ; an antagonism not of personal dislike merely (very often quite the contrary), but of intention, systematic and overruling feeling : *a principle of opposition*. The marvel is how this can be considered a training for true life, when honor comes to mean liberty to deceive any master, provided the secret-society bond is held fast.¹ Theoretically, the masters are training boys to be true, whilst practically, to be false to the trainers of truth becomes the recognized code of honor among the boys who are to be trained ; and must do so, as long as there are divided interests. Now there is much excuse for this falsehood. Wherever teaching has got to mean bringing forward the clever, and training enforced obedience to some rigid general laws that fall on all alike, giving, as all general laws do, great opportunity of license to the bad who evade them, combined with great hardship to the good who keep them—where mob-law of this kind is training, and pouring knowledge into troughs is teaching, and other double purposes exist, it seems right for a boy to stick to *his* flag. It is the least of two evils for him to be true to his companions at the expense, if need be, of the powers that deal so strangely with them.

Nothing but truth in the main plan, and thorough completeness in the school machinery, both in-doors and out, can make boys feel that the school is one body, one army ; that masters and boys are united in one life, with one standard round which they rally, one battle-cry—truth and honor for all ; one object—true progress and true power. But let this be the case, and then the boy-allegiance becomes due to the common standard, not to the traitor who betrays it : to the good cause, not to the mean coward who deserts it : to the true friends and true men who work with him, not to the tap-room heroes whose ideal is a tapster ; then the boys will uphold amongst themselves their laws, just as men uphold theirs, and think it no shame to make thieves and traitors know their place.

If there is opposition between the boys and their teachers, there will be similar opposition between work and play, though the two are equally parts of education. No great progress can be made until the conviction of oneness is stamped on the school heart and becomes its creed. Then the antagonism between in-school and out-of-school, between work and play, between body, intellect, and heart, disappears, and all is in harmony. For the young, learning to have faith in the old, believe with them that life is one piece, and each good helps every other good : health of body, health of intellect, health of heart, all uniting to form the true man, and being the common object of teachers and taught.

¹ His honor rooted in dishonor stood,
And faith unfaithful kept him falsely true.

Guinevere. TENNYSON.

THE CIVILIZING WEDGE.

THE sending of a wooden country school-house from Illinois to the Paris Exposition, was a most innocent piece of irony, for which we must have suffered not a little in the estimation of all intelligent foreigners who chanced upon the ugly little building amid the gorgeous monuments of the outer park. The mistake lay in attempting to represent an idea, on which the United States may well pride itself, by its least impressive symbol. The common-school system is one thing, the common-school building in the rural districts is quite another, though it must be admitted that there is a very strict connection between them, and that the condition of the latter will justify very positive inferences as to the condition of the former. Now, the idea of public instruction is patent—it belongs to us ; but the school-house is a good deal more ancient than the earliest colony this country has ever known. The essentials of a proper edifice for any purpose are as well understood in Europe as they are here, to say the least—in fact, some are ready to assert that there is no architecture on this side the Atlantic ; and it was absurd to suppose that anything we could transport and set up on the Champ de Mars would exhibit our liberality in providing for education. Foreigners must come to us to be convinced of that ; and they must not stray far from the cities. They would, in the interior, find less than half of the school-houses as good as the Illinois specimen, while the location of most of them would promise for the best originals but a short reprieve from neglect and dilapidation. They would be enabled to test the justice of the declaration which has been made by some of our local committees, and has often approved itself to careful observers—not without shame—that in general the housing of our cattle is better than that of our children at the public schools.

To have made the example complete, the Illinois school-house should have had an outhouse ; but its wise projectors probably saw that in this they could not expect to instruct the Old World, or to excite special admiration. They might even have had scruples about deceiving foreigners on this score, or, shall we say, deceiving them further ? They had shown as a fair sample what was really far above the average—being new, and clean, and weather-tight ; the lights all in, the benches not desecrated with obscene carving, the door still turning on its hinges. Commercially speaking, they had already committed an immorality. Could they palm off an outhouse as an invariable accompaniment of the school-house ? or a decent one as the rule where any exists at all ? Clearly not and still profess to be conscientious and upright men. I presume, therefore, that

they did not, and I wish to confirm the wisdom of their omission by citing the testimony of sundry school reports which have been collated by the author of that useful pamphlet, "The Daily Public School in the United States."¹

One county in Ohio speaks, no doubt, the language of many, when it says that the outhouses attached to its schools are "a disgrace to civilization." After that, it is not worth while to summon other witnesses from that State. Let us hear from Pennsylvania a little more in detail :

(*Chester.*) "There are 120 school-houses in the county, 30 of which are so totally unfit, that the comfort, health, or convenience of the pupils attending them is scarcely consulted in a single respect. Only 30 of the 120 are provided with the necessary outbuildings ; 31 are partially provided, and 50 are without any."

(*Cambria.*) "Whole number of school-houses in the county, 148 : unfit for use, 16 ; unsupplied with means of ventilation, 122 ; unprovided with outbuildings, 101."

(*Clinton.*) "There are ten school-houses unfit for use, and positively injurious to both pupils and teachers. The number not provided with outbuildings of any kind is 31 ; with indifferent ones, 38 ; and with suitable ones, 29."

(*Cumberland.*) "Some of the buildings are in a most shameful condition."

(*Northampton.*) "Only one of the nineteen school-houses in one township has the necessary outbuildings. A similar defect exists in several other districts. If these outbuildings are essential to the cultivation of habits of propriety and delicacy among children of the same family, how can they be dispensed with at the public school-house, where 40 or 50 children of different families daily associate?"

(*Tioga.*) "The number of worthless school-houses is very large. Outbuildings are entirely wanting to at least half of the schools."

(*Venango.*) "A school lot neatly fenced, with suitable outbuildings upon it, would be a novelty in this county."

And that Pennsylvania may not blush alone, here are some tidbits from New York :

(*Broome.*) "Fully one-half the school-houses have only the highway for a playground ; and all the surroundings are gloomy and repulsive. Some are entirely destitute of outbuildings."

(*Greene.*) "Eighty school-houses : one-third superlatively bad. Outbuildings scarce and in bad condition."

Here we may as well stop : not because the list is exhausted with these three States and the counties enumerated—for all are guilty in some de-

¹ Philadelphia : J. B. Lippincott & Co. 1866. Vide pp. 87, 88, 111, 112.

gree—but because the evidence is overwhelming. It must be remembered that these corresponding reports from widely different parts of the country imply a general, not a local disease; and as they are probably due to the more enlightened committees and superintendents, it is likely the worst is yet to be told, or that as bad remains.¹ Of one thing we may be sure, that the character of these nuisances has been generally understated whenever exposed at all; and the argument for such an opinion is, that whoever is accustomed to the decency (or indecency) of domestic outbuildings in farming districts, will not be shocked at trifles in the case of the schools. It may as a rule be affirmed, that where the plumber has no part, fastidiousness will have none—at least, quickly—in locating and keeping these receptacles of excrement; and the custom of the country, in the eyes of country people, is a sufficient excuse for neglect which in the city would bring down on the school the police and the Board of Health. We must therefore nearly or quite double, in our imaginations, the actual complaints against the condition or want of outhouses in country schools, in order to get a just idea of the extent of the evil which it is of the first importance to abate, first in the interest of modesty and purity, and then of civilization.

If we picture to ourselves a young woman inducted into a school-house which, to quote the latest description, is "unsightly, unpainted, located on some pitch-pine, white-birch, barren or sand knoll, illy or *too well* ventilated, with a generally dilapidated, tumble-down appearance," with no outhouse, or an "indifferent" one, or one in "bad" or "shameful condition"—at what point, we may ask ourselves, ought she to begin to regenerate her little domain—by bringing her influence to bear on the parents, or committee of the district? Would she not be justified in insisting that decency should be provided for in advance of comfort? Would any sanitary reform—even ventilation and light—have prior claims to the outhouse? And would not a firm refusal to accept an appointment as teacher, until this nuisance be removed, be often sufficient to accomplish the end? Perhaps not, if only one protested; but if teachers generally were as particular about taking a "situation" as our house-servants are (with their demands for stationary tubs, and all other "modern conveniences"), the desired reforms might be brought about. We should like to see a conspiracy, in public, among the members of some one of the numerous Teachers' Institutes, to strike, unless the school-houses of

¹ Here is Mr. Warren Johnson's "Fifteenth Annual Report of the Superintendent of Common Schools of the State of Maine," page 125: "I desire, however, to call your especial attention to the Normal School Building at Farmington. This being a State 'school-house,' it is surely desirable to present in this a fair model of school-buildings. . . . Until last Fall there were not even decent outbuildings, and no dress-room for ladies. These were provided as necessities, trusting to future appropriations to defray expense of same."

the county were renovated in thirty days. If the pretence were resisted, nothing could have a better effect on the minds of the public at large, and we venture to predict that the teachers who had struck would not lack for calls to more congenial fields. Nevertheless, however utopian such a combination may seem, the duty of the individual teacher, whether man or woman, to exert a purifying and enlightening influence upon the scene of his labors, should not be neglected. As long as he endures without remonstrance, the evil will go unchecked.

OUR POPULAR TEXT-BOOKS.

I. English Grammars.

AMONG the branches to which more or less time and attention are given in our schools, English Grammar occupies no insignificant place. This fact of itself demands that, in an examination of the various leading text-books in common use—such as we propose to make—our English Grammars should not be overlooked. But, in order to examine them properly or profitably, we must have some standard to judge by. Before we can pronounce upon their merits as means to a certain end, we need to have a clear and definite idea of the end to be attained, and, if possible, of the appliances and means most likely to secure the attainment of that end. It will, therefore, be necessary to consider two or three preliminary points. These we shall notice as briefly and concisely as justice to the subject will allow.

1. What is the *end* to be attained by the study of English grammar? The variety of views that exist on this point certainly justifies the asking of this question. Some regard grammar as embracing almost everything pertaining to language. They call it, perhaps, "the science of language;" and, accordingly, make it treat of orthography, orthoepy, the derivation and history of words, synonymy, rhetoric, composition, and even the principles of oratory. These, and other subjects sometimes treated of in grammars, may be important—some of them exceedingly interesting—and deserving of attention in the course of a liberal education. But this has nothing to do with the question. The inquiry is simply—Do these subjects belong to the science of grammar, so that their exclusion, one or all, from an English grammar, would render the book incomplete as a text-book on this subject? We answer: No. We ought as soon to look into an Arithmetic for instruction in algebra, geometry, trigonometry, conic sections, surveying, navigation, and the higher mathematics generally, as

to expect to find the different departments of the science of language crowded into "An English Grammar." If we know what grammar, properly so called, is, it is simply that department of the science of language which aims to teach how to combine words correctly in discourse.

The origin and history of language, or of individual words, the principles of orthography, accentuation, versification, composition, and elocution, constitute no part of what is commonly and properly regarded as grammar. Even sentential analysis—by which we do not mean parsing—does not really come within its scope. One may be a superior grammarian, and yet know nothing of A's or B's or any other man's mode of analyzing sentences. Or he may, on the other hand, be skilled as a sentential analyst, and yet be a poor grammarian. The study of sentential analysis, as of other things, may be desirable. It may be well to supplement the study of grammar with it. But to regard analysis as a part of grammar, is like regarding algebra as a part of arithmetic. The end and aim of grammar, properly so called, is correctness in combining our words when we speak or write. Its province, therefore, is to treat of the different kinds of words in the language, considered with reference to the use they serve in speech, their accidents, and the laws to which they are subject when brought together in discourse. This end should be kept steadily in view, and all topics not bearing thereon should be studiously avoided. If any such topics are to be attended to, the learner should fairly understand it, and not be made to suppose he is studying grammar when he is in fact devoting his time to orthography, or analysis, or rhetoric, or linguistics, or something else. Nor is this all. The evil is increased in many instances by the introduction of speculative matter, or profitless "puzzles," that have no more to do with aiding a person to speak or write grammatically than the study of conic sections has. A good grammar will avoid everything not legitimately falling within its province, or calculated to advance the learner as a practical grammarian.

2. At what *age* should grammar be studied? In a certain sense, from infancy. Speech being acquired by imitation, correct examples should, from the first, and as far as possible, be placed before the young, so that, as they acquire the use of the language, they may acquire it correctly. This, however, neither is nor can be always done. Verbal corrections, therefore, may and should be made from day to day, or from time to time, upon such errors as are committed within the teacher's hearing. If this is judiciously and faithfully done, a child, as he advances in years, will acquire a grammatical use of language without what is properly called study. But as the subject of grammar is one of the most abstruse, necessarily requiring much thought and judgment, the *study* of scarcely anything more than the simplest and plainest definitions and rules and the paradigms can hardly be expected before the learner shall have attained a

sufficient degree of maturity to reason and pass judgment. A small treatise on grammar, like a small map of the world, if adapted to his capacity, may serve to give him a correct idea of the *more prominent* features of the subject. But the details and nicer points can neither be understood nor learned by ordinary children under fourteen or even fifteen. It is not to be denied that, to most students, grammar is a dry, difficult, and profitless subject. This is owing, in a measure, no doubt, to the unsatisfactory manner in which it is treated in the text-book employed, or to the teacher's incapacity or inefficiency, or to both : but not wholly ; for, with the best text-books and under the most efficient teachers, how many still find it an irksome, uninteresting subject ! The truth is, that among all the studies commonly assigned to children, there is none inherently so difficult as grammar, requiring, as it does, in very many instances, the closest attention and the nicest exercise of the analytical powers. The study of algebra and geometry is deferred generally till the learner is able to comprehend the nature of abstractions and pursue understandingly a course of argumentation. This is right. A similar course in regard to the study of English grammar, with suitable text-books and capable instructors, we doubt not, would revolutionize the views and feelings with which learners generally regard it. What is now uninteresting, because difficult of comprehension, would then be pursued with zeal and correspondingly greater profit.

3. Another question that might be appropriately asked is, How much *time* should ordinarily be given to the study of this subject ? Ability to speak or to write grammatically, is a thing of prime importance. It shows itself everywhere and at all times. Not so, however, with a knowledge of other branches. A man may mingle with men for weeks and even months, and his proficiency or deficiency in arithmetic, geography, penmanship, the classics, geometry, and other sciences, may not be at all apparent or even suspected. But let him speak or write, and his words will testify at once either for or against him. And sometimes they do it in such a way as to make or mar his fortune. Of all branches of knowledge, grammar would thus seem to be one of the most thoroughly practical. The time, therefore, to be devoted to it in the ordinary course of one's education should be proportioned to its relative value, so far as this can be done without infringing upon the claims of other and what may possibly be considered more important studies. And yet the time required, comparatively speaking, is not long. With a properly prepared text-book, and with students of a suitable age, a year ought to afford ample time for acquiring, in connection with other studies, a thorough practical knowledge of the leading principles and rules of grammar, which, with occasional after-exercises, oral and written, to deepen and fix that knowledge, should serve to make students more than ordinarily pro-

ficient in this department. That, then, is the best text-book by means of which, all other things being equal, the greatest amount of practical grammatical knowledge can be acquired in the shortest time.

4. This leads us, almost necessarily, to consider the *method* employed ; for very much depends upon the mode in which knowledge is presented. Of course, every author, as well as every teacher, will have, to a certain extent, a method of his own. And yet there are certain points essential to every properly prepared text-book. One is systematic arrangement and a clear and thorough treatment of one thing at a time. Nothing is more confusing and unsatisfactory than the immethodical jumbling together of disconnected subjects. Under the notion of being "synthetic," or "progressive," or "practical," text-books are too often made, like mince-pies, very various in their materials, with those materials thoroughly mixed together, and possibly well spiced too after a fashion, but shockingly hard to digest. This is one reason why the intellectual stomach of little boys and girls revolts so generally against grammar, either as a daily diet or as an occasional dessert. Their text-books, instead of possessing a clear and natural arrangement, with each subject lucidly and satisfactorily treated by itself, are literary hashes or stews, in which the true character of the matter in hand is scarcely distinguishable. It looks perhaps like syntax, but is found under "etymology;" or, it has the appearance of etymology, but is called "syntax." It may be a pronoun, but is treated as a noun or an adjective ; or, it may be an adjective, but is found among adverbs. And so on, *ad infinitum*. We expect, therefore, to find, in a grammar worthy of adoption and use as a text-book, an orderly arrangement and as simple and homogeneous a treatment of the subject as the circumstances will allow.

Another and the principal point is that, whatever may be his general plan, if the author expects to invest the subject with interest and succeed in making grammarians, he will deal as little as possible in mere generalities. He will not be satisfied with inculcating principles, and leaving his pupils to reduce them to practice the best way they can. The great mass of learners are not philosophers, and consequently can neither comprehend the scope of general statements, nor derive therefrom any practical advantage. Not merely should the definitions and rules be given in language clear, correct, and concise, for memorizing ; but they should be followed up by repeated, full, and varied applications, serving both to fix those definitions and rules, and to make them practical, which in fact is the principal thing. Nor will it do to leave these to be supplied by the teacher. Teachers, for one reason or another, in nine cases out of ten, do not and will not thus supplement an author's deficiencies. Hence, while frequent, thought-awakening exercises, requiring a practical application of the learner's knowledge, and calling forth an exercise of his skill

and judgment as he proceeds, are essential, they should be found at hand in every suitable text-book on this subject, especially in the department of syntax. There is nothing, we are confident, that conduces more toward making a practical grammarian than the correcting of examples in false syntax. We are aware that there are those who differ with us on this point. No less eminent and distinguished a writer than the Hon. George P. Marsh, in the first number of the New York World, published June 14th, 1860, holds the following language: "The other objection to which we refer, is the employment of examples of false spelling and grammar, as a means of teaching true orthography and syntax. [With the question of teaching *orthography*, we have nothing to do now. We believe, however, with Mr. Marsh, that to correct false spelling is not the true way to teach right spelling.] Bad example is in all things more contagious than good. We all know how dangerous it is to imitate, even in joke, a vicious pronunciation or an ungrammatical phrase." Very true; but the examples referred to are not given for "imitation." The effect of *correcting* false syntax is just the reverse of that here supposed. Instead of vitiating one's speech, it is the most effectual means of improving it. It is virtually showing a person his own faults and those to which he is liable, and enabling him to shun them; whereas, if they were not pointed out to him, he would probably never be so much as aware of their existence, much less be enabled to overcome them. We are not indulging in speculations on this matter. We know whereof we affirm. Nor can we yield our convictions, based on years of experience and observation, to the *ipse dixit* or conjectures of any one, however eminent he may be, whose want of experience in the matter is enough to disqualify him for judging. We believe with Murray, "that a proper selection of faulty composition is more instructive to the young grammarian than any rules and examples of propriety that can be given."—(*Introd. to Eng. Gram.*) Does any one question it? Let him compare the best writers previous to Murray's time with those of the present day. He will find that, grammatically, the latter are far in advance of the former. And why is this? Obviously, the later writers have arisen from among the thousands and tens of thousands that have been drilled in the exercises in false syntax given by Murray, Brown, and others. By writing out those exercises, or correcting them orally, they were compelled to put into practice what they had learned,—an advantage which but few earlier writers enjoyed. The best grammatical text-books will ever be found to abound with practical exercises, affording the learner *something to do*, not simply in the way of learning definitions and principles, and examining examples illustrative of them, but more especially in the way of correcting such violations of those principles as in ninety-nine cases in a hundred would probably pass unheeded in after-days, if the attention were not thus called to them.

AMERICAN EDUCATORS DECEASED IN 1868.

II.

MATTHEW VASSAR, the founder of Vassar College, died in the College building at its anniversary on the 23d of June, aged 76 years. He had acquired a large fortune as a brewer, and, having no children to inherit his money, he determined to found a college for the education of women. In February, 1861, he gave to trustees incorporated for the purpose \$408,000, in bonds, stocks, &c., to found Vassar College. He subsequently added considerable sums to this endowment; and induced his nephews to make special donations to it. In his will he made further bequests for its endowment, repairs, &c., making the total of his gifts to the College nearly \$900,000.

On the same day the Rabbi MORRIS JACOB RAPHAEL, Ph. D., a Jewish preacher, teacher, and author, died in New York City, aged 70 years. Born in Stockholm, Sweden, educated at the Jewish College in Copenhagen, and at the University of Giessen, he took up his residence in England in 1825, and distinguished himself as a lecturer on Hebrew Biblical Poetry. He also acquired reputation by his excellent translations of standard Hebrew works, and by his original and vigorous essays. Appointed Rabbi preacher to the Synagogue at Birmingham, he founded in that city a Hebrew National School, and by his exertions in behalf of education won the high regard of all the citizens. He came to the United States in 1849, and as Rabbi of the Great Synagogue, and editor of a Jewish periodical, as well as by his published works, he accomplished much for the cause of education.

Rev. WILLIAM ALLEN, D. D., an eminent scholar, instructor, and author, died at Northampton, July 16, aged 84. He was a graduate of Harvard College, class of 1802. He studied theology under the direction of Rev. Dr. Pierce, of Brookline, Mass. From 1805 to 1810 he resided in Cambridge as Assistant Librarian and Regent or Proctor of Harvard College. He was ordained as Pastor in Pittsfield, Mass., in 1810, appointed President of Dartmouth University in 1816, withdrew under the decision of the Supreme Court of the United States in 1819, became President of Bowdoin College in May, 1820, and continued in that position till 1839, when he resigned, and took up his residence in Northampton, Mass. His subsequent life was devoted to literary and scientific pursuits.

Colonel T. C. JOHNSON, late President of Randolph-Macon College, Virginia, died at Mattoon, Ill., August 3d.

Miss HANNAH UPHAM, for many years principal of the Canandaigua Seminary, died in Canandaigua, N. Y., August 20th, aged 80.

Professor GEORGE J. ADLER died at the Bloomingdale Insane Asylum, August 24th, aged 47 years. A native of Germany, he came to the United States at the age of twelve years. He was graduated at the University of New York in 1844, was appointed Professor of German in the University in 1846, and continued in that position till 1854. He was the author of the best German-English and English-German Dictionary yet published, and of many other valuable text-books of modern languages. He had been insane at intervals since 1860.

September 1st.—SIMEON BENJAMIN, a wealthy and benevolent patron of education, a resident of Elmira, New York, died at Riverhead, L. I., aged 72. Mr. Benjamin's interest in education was deep and earnest. He was an early friend of the Auburn Theological Seminary, and had given at different times \$15,000 or more to it. In his will he left it an additional \$10,000. He had also been a trustee and friend of Hamilton College, and had given \$20,000 toward its endowment, to which he added in his will \$20,000 more. He was one of the founders of the Elmira Female College, and had been for years the President of its Board. His previous donations to it amounted to \$55,000, and he added in his will \$25,000 more. Besides these liberal bequests and gifts, he left \$30,000 to the Presbyterian Boards of Home and Foreign Missions, and a considerable sum to the Orphans' Home at Elmira.

On the 3d of September, Hon. DAVID L. SWAYNE, LL.D., President of the University of North Carolina for many years past, died at Chapel Hill, N. C., of injuries received by being thrown from his carriage a few days previous.

The Right Rev. GEORGE ALOYSIUS CARRELL, S. J., D. D., Roman Catholic Bishop of Covington, Kentucky, died at Covington, Kentucky, September 25th, aged 65. He was educated at the College of Georgetown, D. C., at Mount St. Mary's, Emmitsburg, at the Novitiates of the Society of Jesus, at Whitemarsh, Md., and at Florissant, Mo. For six years he was a Pastor in Philadelphia, and in Wilmington, Delaware, establishing excellent schools in the latter city. In 1837 he became a Professor in the University of St. Louis. From 1845 to 1848 he was Rector of the University; in 1849-50 President of Purcell Mansion College, Cincinnati; and from 1851 to 1853 Rector of St. Xavier's College, Cincinnati, and Pastor of the College Church. In 1853 he was consecrated Bishop of Covington, but his interest in education continued, and he established numerous schools in his diocese.

September 26.—Rev. DAVID TODD STUART, a Presbyterian clergyman and teacher, died at Shelbyville, Kentucky, aged 58 years. He was educated at Centre College, Danville, and at Princeton Theological Seminary. From 1835 to 1853 he was Pastor of the Presbyterian Church of Shiloh and Olivet, Kentucky, taking deep interest in education. In

1853 he removed to Shelbyville, and took charge of the Shelbyville Female Seminary, the care of which he retained till his death.

JOHN McVICKAR, D.D., Episcopal Clergyman and Professor of Moral Philosophy, died at Bloomingdale, New York City, October 28, aged 82. He was graduated from Columbia College in 1804. From 1811 to 1817 he was Rector of the Episcopal Church at Hyde Park, New York, when he was appointed Professor of Moral Philosophy, Rhetoric, and Belles Lettres in Columbia College. He discharged the duties of his professorship for more than forty years. A few years ago his health compelled his resignation, and he was created Emeritus Professor.

On the 24th of November, Rev. HIRAM MATTISON, D.D., a Methodist clergyman, teacher, and author, died in Jersey City, New Jersey, in the 58th year of his age. He was a native of Oswego, New York, a graduate, we believe, of Wesleyan University, Middletown, Conn., and for many years a Professor in the Black River Institute.

JOHN A. NICHOLS, LL.D., one of the most successful of our city professors of mathematics, died in New York City on the 27th of November, aged 47. He had at first been appointed to the Chair of Experimental Philosophy as successor of Lieut. (since Major-Gen.) William B. Franklin, but a few months later (in 1852) was transferred to the Chair of Mixed Mathematics, which he held till his death.

ARTHUR E. PETTICOLAS, M.D., Superintendent of the Eastern Lunatic Asylum at Williamsburg, Va., committed suicide there, in a paroxysm of insanity on the 28th of November, by leaping from an upper window. He was an accomplished physician, and had been for some years a professor in the Medical College at Richmond, Va.

On the same day, Rev. LABAN CLARK, D.D., an eminent Methodist Clergyman, and one of the founders and warmest friends of Wesleyan University, died at Middletown, Conn., in his 91st year.

HAWLEY OLMSTEAD, LL.D., for almost half a century identified with educational interests in New Haven, Conn., and its vicinity, died in that city December 4th, at the age of 75. He was graduated from Yale College with the highest honors in 1816, and soon after took charge of the Academy at Wilton, Conn. He was subsequently Rector of the Hopkins Grammar School, in New Haven, until 1849, when he resigned in consequence of ill health, but kept up his connection with the College and his interest in the educational affairs of the City and State until his death.

On the same day, Rev. JOSEPH SMITH, D.D., a Presbyterian clergyman and teacher, died at Greensburg, Pa., aged 73. He was educated at Jefferson College, Pa., graduating in 1815. After teaching at Berryville, Va., for a year or more, he entered Princeton Theological Seminary, and was ordained in 1822. At Harrisonburg and Staunton, Va., and Frederick City, Md., where he was successively settled, he had charge of

large academies, in addition to his pastoral duties. In 1833 he was chosen President of Franklin College, New Athens, Ohio, where he remained till 1838, when he resigned and returned to Frederick City, Md. Here he took the Presidency of a new College, together with the pastorate of the Presbyterian Church. He fulfilled these double duties until 1843, when he removed to Ellicott's Mills, Md. His subsequent career was not specially connected with education.

DEWITT C. ENOS, M.D., an eminent Physician and Medical Professor, of Brooklyn, New York, died in that city December 14, aged 45. He had been for some years Professor of Anatomy in the Long Island College Hospital.

December 19th.—USHER PARSONS, M.D., a distinguished surgeon, professor, and author, died in Providence, R. I., aged 80. He was a native of Maine, and received an excellent academical education in that State. He studied medicine in Boston under the elder Dr. Warren, and was a Surgeon on Commodore Perry's flagship in the battle of Lake Erie. Settling in Providence after the war, he was subsequently Professor of Anatomy in Dartmouth College, Professor of Natural Science in Brown University, and long President of the Rhode Island Medical Society. He was also an author of considerable note.

REV. BASIL MANLY, D.D., an eminent Baptist clergyman, teacher and author, died at Greenville, S. C., in December, in the 71st year of his age. He was educated at Brown University. He was Pastor of the First Baptist Church in Charleston, S. C., from 1826 to 1837, when he accepted the Presidency of the University of Alabama, where for nearly twenty years he was remarkably successful as an instructor and disciplinarian. In 1856 he resigned, and returned to Charleston. In 1859 he removed again to Alabama, but did not engage in teaching.

STUDYING LATIN.

II.

IN the former article it was stated that to acquire a sufficient knowledge of the word-forms, of the constructions, and of the words, is tantamount to mastering a language; and that these three elements ought to be studied together.

It is proposed in the present paper to treat of the study of the words.

When the attempt is made to teach the inflections, syntax, and the words simultaneously, the latter are generally selected and arranged in lists for study. In compiling these vocabularies certain principles ought

to be observed. In the first place, they ought to contain all the common and important words of the language. It is quite possible to learn the words answering to this description. They are not very numerous; and surely this end must be kept in view if the language is to be learned. As boys study Latin at present, they learn the language of history and that of poetry, but they do not learn the words of common every-day use. From this cause, in part, it falls out that they cannot speak in Latin without great effort: it would be hard for them to express themselves in their own language in the lofty style of Milton or of Macaulay—and they cannot speak at all of the familiar things which they talk about daily in their own tongue. The study is thus deprived of its interest, of its reality, and in great measure of its value. It is of more importance for us to know the language of the barber-shop than it is to know the language of the senate-house. Not that the words of dignified discourse are worthless. It is only to be insisted on that the common words, the words of the *vulgus*, shall receive their fair share of attention. We need to know the colloquial Latin as well as the Latin that goes on stilts.

In the second place, the definitions should be complete. In most cases it has been deemed sufficient to give one or at most two meanings of each word; while in partial lexicons, intended for single works, those meanings only are given that are necessary for translating those works. Thus there is no systematic and thorough study of the words. The knowledge gained is fragmentary, and cannot be used with confidence. Full and accurate knowledge can be gained only by having full definitions. But to learn these definitions seems at first blush to be a task for a Hercules. Every boy who has consulted the larger dictionaries, has been surprised at the great variety of meanings attaching to the barest and commonest words. For instance: *make*, according to Worcester, has eighteen meanings; *do* has six; *hard* has twelve; and *hand* has fifteen. There is the same variety in the significations of Latin words: some have as many as thirty or forty English equivalents. To study definitions at this rate is out of the question. But there is in general one meaning to which all the other meanings can be traced. It will be sufficient to define a word by giving its root-meaning and the most important and most divergent derived meanings. This would lay a broad and solid foundation. Practice and use would soon give completeness and finish to the knowledge thus begun.

It often happens, however, that the pupil is left to get his knowledge of words from the pages of the general dictionary. The great multitude of meanings then becomes a serious aggravation of his troubles. This is especially true when he is translating Latin into English. He finds great difficulty in selecting the proper definition,—a difficulty not experienced in reading English, because the meanings of nearly all the words in any

ordinary English sentence must be known ; whilst it is often the case that a boy who has never studied words does not know the meanings of any but the commonest words in the sentence he is trying to decipher. And if he is told to learn the words, he is appalled at the thought of studying the almost numberless meanings. But the task seems harder than it really is. The root-meaning, once ascertained and committed to memory, is a key to the rest. The mere mental act of tracing them up to the root-idea often suffices to fix them in the memory. The word *manus* may be taken as an illustration. It has about fifteen senses (V. Andrews' Dictionary) ; they are as follow : (1) hand, (2) fist, (3) handwriting, (4) workmanship, (5) skill, (6) stake, as in gambling, etc., (7) thrust, as in fencing, (8) blow, (9) trunk, of the elephant, (10) fore-paw, (11) branch, of a tree, (12) grappling-irons, used in sea-fights, (13) body of troops, (14) host, or multitude, (15) power. Now the connection of all the derived meanings with the root-meaning is quite plain, except in the case of the thirteenth and fourteenth. The simple recognition of this connection is sometimes sufficient to fix the meanings in the mind. Even if not quite sufficient, it is at least a powerful aid to the memory ; and if the habit is formed of tracing all the secondary meanings to their root, though done without a formal attempt to commit them to memory, the knowledge of words will increase at a surprising rate. It will give better results, however, to fix upon some small portion of the daily lesson—say the first five lines—and study all the words in those lines. Study all the meanings if possible ; and at any rate the root-meaning and more important of the secondary meanings. Work of this kind, if done faithfully and thoroughly, will be found very profitable. The student will soon be able to quadruple his lessons, and, after a few months, will be able to translate at sight, without study. This is no mere theory. We have seen boys acquire, in a few weeks, such knowledge of the words of their author as to be able to translate four or five pages a day, whereas formerly they had found it difficult to turn into English half a page at a lesson.

WHAT I admire in Germany is, that while there too industrialism, that great modern power, is making at Berlin, and Leipzig, and Elberfeld, the most successful and rapid progress, the idea of culture—culture of the only true sort—is in Germany a living power also. . . . If true culture ever becomes at last a civilizing power in the world, and is not overlaid with fanaticism, by industrialism, or by frivolous pleasure-seeking, it will be to the faith and zeal of this homely and much ridiculed German people that the great result will be mainly owing.—*Matthew Arnold.*

NEAR-SIGHTEDNESS IN CHILDREN.

REVIEWING Dr. Cohn's report¹ of an examination of the eyes of some ten thousand German school children, *The Nation* says:

"The author takes for his motto the words of Prof. Donders: 'I say, without hesitation, that a short-sighted eye is a diseased eye.' Probably four out of every five readers of this page do not believe Donders. Popularly, 'a near-sighted eye is a strong eye.' Let any one who wishes make the experiment of telling the next man he meets with glasses that his eyes are diseased. We assure him of a cool and incredulous reception. Every one has friends or relations who are near-sighted, but who work long and hard by lamp-light, and endure it as well as anybody; and we are not ready to believe that our friends—still less ourselves—labor under a 'chronic organic disease' of the eyes. Still, the words upon the title-page confront us with the disagreeable assertion of this fact. Before examining Dr. Cohn's book, let us state plainly what a near-sighted eye is, and how it merits to be called diseased.

"The fortunate possessor of a good eye can read a printed page like this at the distance of three feet. He can bring the page gradually nearer, to within three or four inches of his eye, and still be enabled to read, through a conscious effort—an actual muscular effort—of which the rationale is as follows. The rays of light pass through the lens, called crystalline, placed in the central axis of the eye, and are focused upon the retina, as the picture in a magic lantern is focused by the lens upon the white sheet. *Distant* rays are exactly focused by the normal eye at rest—and therefore vision of distant objects is clear. But to focus a *near* object exactly, of course, requires a lens of a different shape; and this slight change of shape is actually effected by the aid of a tiny muscle within the eye. When normal eyes are engaged upon objects within a distance of less than a foot, this muscle is constantly at work, adapting the shape of the lens to suit circumstances. Of course, the muscle may become wearied with overwork. It may ache, and set the whole eye aching. More than this, the effort—expressively called 'straining the eye'—produces a pressure upon the coats of the eyeball from within; and in young children these coats are delicate, and may easily acquire a tendency to give way before this constant pressure. The pernicious habit of holding

¹ "Untersuchungen der Augen von 10,060 Schulkindern, nebst Vorschlägen zur Verbesserung der den Augen nachtheiligen Schuleinrichtungen. Eine ätiologische Studie von Hermann Cohn, Med. et Philos. Dr. Augenarzt in Breslau." Leipzig, 1867. 8vo, pp. 171. [An Examination of the Eyes of 10,060 School children; with suggestions for the correction of certain arrangements in schools injurious to the eyes; by Dr. H. Cohn, of Breslau.]

the head down to the book tends to the same result, for, of course, the blood rushes into the eye, crowding it still further, and increasing the tendency—if any exists—to a gradual bulging out of the eye. Here, then, is the whole story. An eye is overworked in such a manner as to make its fluid contents press too severely upon its coats; the pressure is continued, six hours a day, for two or three thousand days; the process is begun at an age when the whole body is soft, when even the bones will bend before breaking; the eyeball begins gradually to lose its correct shape; it yields at the back part, and thus becomes slightly elongated. This condition is near-sightedness. The retina, at the rear of the eye, is too far from the lens to receive an image properly focused. Further optical explanation is here out of place; suffice it to say, that this simple change in the shape of the eyeball constitutes near-sightedness, and that this changed condition is not a healthy one, but often tends to a steadily increasing disorganization of the coats of the eye, producing partial or total blindness in the end.

"Thus is our author's motto justified. As to his observations, they are truly invaluable, as being really the first of the kind which have been alike wide in their range, ample in number, and minutely careful in each instance. He has examined five schools of low grade in the village of Langenbielau, near Breslau, and twenty-eight schools—of six orders—in the latter city. The ages of the 10,060 pupils varied from seven to twenty-two years. The examination was conducted during the winter term of 1865-6, with all the appliances known to modern science for obtaining trustworthy results. The mode of examination was as follows. Every scholar was bidden to stand in a good light, and read from a sheet printed for the especial purposes of this test; the type being at a distance of four feet from his eyes. Those who could not read rapidly from this sheet were noted as deficient in visual power. Each one thus noted as deficient was then subjected to a thorough examination by the means of glasses and the ophthalmoscope in the hands of Dr. Cohn himself. The result of this examination gave the surprising total of 1,730 children—over 17 per cent. of all examined—as more or less deficient in sight. We will give a rapid summary of a few of the principal results.

"The number of children with defective vision increases steadily, through seven grades of schools, from 5 per cent. in the lowest grade to 31.7 per cent. in the highest. This large proportion, nearly one-third in the highest, is not accidental, for it is obtained from an examination of two *gymnasias* (answering to our American 'colleges') containing 1,195 pupils. The proportion in the city schools is nearly four times as great as in the country schools. Of the 1,730 with defective vision, 1,004 were near-sighted, very trifling cases of the affection not being included.

"No school was without myopic (*i. e.* near-sighted) scholars. The

village schools, on the average, had 1.4 per cent. ; the city schools eight times as many (11.4 per cent.) In the city there was a constant increase in the number of myopes from the lowest grade of school up to the highest ; *i. e.* from 6.7 per cent. up to 26.2 per cent. In the two upper classes of the *gymnasía*, 115 were near-sighted, against about 135 who were not so ! As to age, among the pupils in the village schools, 243 were found who had attended school not more than six months ; of these, *not one* was near-sighted. The proportion rises steadily, in almost every kind of school, from the youngest to the oldest classes. The degree of affection increases in proportion to the age of the scholars and the rank of the school. Less than one-fourth of the near-sighted required glasses between Nos. 6 and 15 ; the remainder weaker glasses. Near one-half required No. 24, or a weaker glass.

"Without going further into Dr. Cohn's statistics, surely here is enough to set us on the inquiry for causes. No near-sightedness before the school age—and nearly one-half of the oldest pupils near-sighted ! Our author sums up his results with the remarks : 'I am far from attributing the enormous extension of near-sightedness among school children *exclusively* to the school ; but a due respect for hygienic laws should compel us to arrange matters so that no one can point out even a possible cause of harm.' The points which he would see attended to are :

"1. School desks and seats adapted to support the child's body in a healthy position, with his eyes at a proper distance from the book.

"2. Very well lighted school-rooms, to remove the temptation to hold the book near the face—a prolific source of the increase of near-sightedness.

"3. Statutes to prevent school children from wearing glasses unless ordered and selected by a physician.

"4. Strict disciplinary measures to prevent scholars amusing themselves by *squinting* (a popular athletic pastime !)

"5. Instruction in normal schools, that teachers in future may be aware of the evils arising from bad hygienic arrangements in schools.' He adds :

"I am convinced that if these suggestions should be attended to by those in authority, the result would be, not indeed the complete banishment of diseased eyes from the world, but a *great diminution of the number of "diseases of refraction" in children.*

"In a very thorough examination of the school-desks and seats, Dr. Cohn found almost universally prevalent these faults : 1. They did not correspond to the size of the pupils. 2. The feet were unsupported. 3. The book was brought too near the face. 4. The seat was away from the desk (in order to allow the scholar to rise in his place), in consequence of which the body had to stoop forward very much. This was

one of the chief faults found. 5. Desk tops flat, instead of inclined. He says: 'In every class where I was present during the exercise of writing, I was able to show the teacher that the eyes of almost every scholar were but two or three inches distant from the paper, instead of a foot, or a foot and a half, as they ought to be.' His suggestions are: to support the feet; to bring the seat and the desk so near that the edge of the latter shall project an inch over the former; to make the desk from $6\frac{1}{2}$ to 9 inches higher than the seat, according to the size of the scholar; and to incline the desk top moderately.¹ The windows of school-rooms also received a good deal of attention from Dr. Cohn. He says, in regard to the quantity of light admitted, 'The number of near-sighted pupils in the twenty elementary schools is in each case proportional to the narrowness of the street, the height of the opposite houses, and the lowness of the story in the school-house in which the class is placed.'

"In regard to the use of glasses we find our author reprehending in strong terms the employment of the same pair for reading and for viewing distant objects. It is almost sure to bring on a rapid increase in the degree of near-sightedness. Bad type, fine maps, writing on slates or with poor ink, reading in bed, by firelight or moonlight, fine embroidery, etc., are also more or less potent causes; to which he adds congenital predisposition. We would point out, as another cause, the over-heating of school-rooms. It needs no proof to show that this must cause congestion of the eyes—which is one of the strongest operating causes in producing near-sightedness. But an anecdote (for the truth of which we vouch) will set this in a clear light. A lady, recently visiting one of the colored normal schools in Richmond, found a class of young girls standing against the wall, behind the stove—apparently because there was no other place to stand. They all held their books within a very few inches of their faces, and on being asked why they did so, replied that they could not see to read otherwise (which was really the case). They were sent out of doors to cool themselves, and on returning they could read at the proper distance. Precisely the same state of things was encountered in another school: temporary myopia from standing behind a stove, cured by a few minutes in the fresh air.

"Dr. Cohn found the opposite condition to near-sightedness in 239 children—less than one-fourth as many. Nor does the proportion increase in the higher schools, but the far-sighted are distributed without any seeming law."

¹ The faults, which Dr. Cohn found in German school-desks, are so completely obviated, and his suggestions so fully carried out in the AMERICAN SCHOOL DESKS AND SETTEES,—and to a certain extent in the most of our other first-class school furniture,—that it would seem like carrying coals to Newcastle to recite them here, were not the fact notorious that in the majority of our private schools, and nearly all the public schools in the rural districts, the desks and benches are as bad as they possibly can be in Germany.—ED. AM. ED. MONTHLY.

RANDOM READINGS FROM LOCKE.¹

A SOUND mind in a sound body is a short but full description of a happy state in this world. He that has these two, has little more to wish for ; and he that wants either of them, will be but little the better for anything else. Men's happiness or misery is for the most part of their own making. He whose mind directs not wisely, will never take the right way ; and he whose body is crazy and feeble, will never be able to advance in it. I confess, there are some men's constitutions of body and mind so vigorous and well framed by nature, that they need not much assistance from others ; but, by the strength of their natural genius, they are, from their cradles, carried toward what is excellent ; and by the privilege of their happy constitutions, are able to do wonders. But examples of this kind are but few ; and I think I may say that, of all the men we meet with, nine parts of ten are what they are, good or evil, useful or not, by their education. It is that which makes the great difference in mankind. The little, or almost insensible impressions on our tender infancies, have very important and lasting consequences ; and there it is, as in the fountains of some rivers, where a gentle application of the hand turns the flexible waters into channels, that make them take quite contrary courses ; and by this little direction given them at first, in the source, they receive different tendencies, and arrive at last at very remote and distant places.

—Children being more active and busy in that age than in any other part of their life, and being indifferent to anything they can do, so they may be but doing ; dancing and Scotch-hoppers would be the same thing to them, were the encouragements and discouragements equal. But to things we would have them learn, the great and only discouragement I can observe is, that they are called to it : it is made their business ; they are teased and chid about it, and do it with trembling and apprehension ; or, when they come willingly to it, are kept too long at it, till they are quite tired ; all which intrrenches too much on that natural freedom they extremely affect. And it is that liberty alone which gives the true relish and delight to their ordinary play-games. Turn the tables, and you will find they will soon change their application ; especially if they see the examples of others whom they esteem and think above themselves. And if the things which they observe others to do, be ordered so that they insinuate themselves into them, as the privilege of an age or condition above theirs ; then ambition, and the desire still to get forward and higher, and to be like those above them, will set them on work, and

¹ Some Thoughts Concerning Education. By JOHN LOCKE. New York : J. W. Schermerhorn & Co. 2 vols. 32mo, pp. 192, 160.

make them go on with vigor and pleasure ; pleasure in what they have begun by their own desire. In which way the enjoyment of their dearly beloved freedom will be no small encouragement to them. To all which, if there be added the satisfaction of credit and reputation, I am apt to think there will need no other spur to excite their application and assiduity, as much as is necessary.

—It will perhaps be wondered that I mention reasoning with children ; and yet I cannot but think that the true way of dealing with them. They understand it as early as they do language ; and if I misobserve not, they love to be treated as rational creatures sooner than is imagined. It is a pride that should be cherished in them, and, as much as can be, made the greatest instrument to turn them by.

But when I talk of reasoning, I do not intend any other but such as is suited to the child's capacity and apprehension. Nobody can think a boy of three or seven years old should be argued with as a grown man. Long discourses and philosophical reasonings, at best, amaze and confound, but do not instruct children. When I say, therefore, that they must be treated as rational creatures, I mean that you should make them sensible, by the mildness of your carriage, and the composure, even in your correction of them, that what you do is reasonable in you, and useful and necessary for them ; and that it is not out of caprice, passion, or fancy, that you command or forbid them anything. This they are capable of understanding ; and there is no virtue they should be excited to, nor fault they should be kept from, which I do not think they may be convinced of ; but it must be by such reasons as their age and understanding are capable of, and those proposed always in very few and plain words. The foundations on which several duties are built, and the fountains of right and wrong, from which they spring, are not, perhaps, easily to be let into the minds of grown men, not used to abstract their thoughts from common received opinions. Much less are children capable of reasonings from remote principles. They cannot conceive the force of long deductions ; the reasons that move them must be obvious, and level to their thoughts, and such as may (if I may so say) be felt and touched. But yet, if their age, temper, and inclinations be considered, they will never want such motives as may be sufficient to convince them. If there be no other more particular, yet these will always be intelligible, and of force to deter them from any fault fit to be taken notice of in them, viz., that it will be a discredit and disgrace to them, and displease you.

But of all the ways whereby children are to be instructed, and their manners formed, the plainest, easiest, and most efficacious, is to set before their eyes the examples of those things you would have them do or avoid. Which, when they are pointed out to them, in the practice of persons within their knowledge, with some reflections on their beauty or unbecoming-

ness, are of more force to draw or deter their imitation than any discourses which can be made to them. Virtues and vices can by no words be so plainly set before their understandings as the actions of other men will show them, when you direct their observation, and bid them view this or that good or bad quality in their practice. And the beauty or uncomeliness of many things, in good and ill breeding, will be better learnt, and make deeper impressions on them, in the examples of others, than from any rules or instructions that can be given about them.

This is a method to be used, not only whilst they are young, but to be continued, even as long as they shall be under another's tuition or conduct. Nay, I know not whether it be not the best way to be used by a father, as long as he shall think fit, on any occasion, to reform anything he wishes mended in his son; nothing sinking so gently and so deep into men's minds as example. And what ill they either overlook or indulge in themselves, they cannot but dislike and be ashamed of when it is set before them in another.

Begin therefore betimes nicely to observe your son's temper; and that, when he is under least restraint, in his play, and, as he thinks, out of your sight. See what are his predominant passions and prevailing inclinations; whether he be fierce or mild, bold or bashful, compassionate or cruel, open or reserved, etc. For as these are different in him, so are your methods to be different, and your authority must hence take measures to apply itself different ways to him. These native propensities, these prevalencies of constitution, are not to be cured by rules, or a direct contest; especially those of them that are the humbler and meaner sort, which proceed from fear and lowness of spirit; though with art they may be much mended, and turned to good purpose. But this be sure of, after all is done, the bias will always hang on that side where nature first placed it; and, if you carefully observe the characters of his mind now, in the first scenes of his life, you will ever after be able to judge which way his thoughts lean, and what he aims at even hereafter, when, as he grows up, the plot thickens, and he puts on several shapes to act it.

—You will wonder, perhaps, that I put learning last, especially if I tell you I think it the least part. This may seem strange in the mouth of a bookish man; and this making usually the chief, if not the only bustle and stir about children; this being almost that alone which is thought on, when people talk of education, makes it the greater paradox. When I consider what ado is made about a little Latin and Greek, how many years are spent in it, and what a noise and business it makes to no purpose, I can hardly forbear thinking that the parents of children still live in fear of the schoolmaster's rod, which they look on as the only instrument of education; as if a language or two were the whole business. How else is it possible that a child should be chained to the oar seven,

eight, or ten of the best years of his life, to get a language or two, which I think might be had at a great deal cheaper rate of pains and time, and be learned almost in playing?

When he can talk, it is time he should begin to learn to read. But as to this, give me leave here to inculcate again what is very apt to be forgotten, viz., that a great care is to be taken that it be never made as a business to him, nor he look on it as a task. We naturally, as I said, even from our cradles, love liberty, and have therefore an aversion to many things, for no other reason than because they are enjoined us. I have always had a fancy that learning might be made a play and recreation to children; and that they might be brought to desire to be taught, if it were proposed to them as a thing of honor, credit, delight, and recreation, or as a reward for doing something else, and if they were never chid or corrected for the neglect of it. That which confirms me in this opinion is, that amongst the Portuguese it is so much a fashion and emulation amongst their children to learn to read and write that they cannot hinder them from it, and are as intent on it as if it were forbid them. I remember, that being at a friend's house, whose younger son, a child in coats, was not easily brought to his book (being taught to read at home, by his mother); I advised to try another way than requiring it of him as his duty. We therefore, in a discourse on purpose amongst ourselves, in his hearing, but without taking any notice of him, declared that it was the privilege and advantage of heirs and elder brothers to be scholars: that this made them fine gentlemen, and beloved by everybody; and that for younger brothers, it was a favor to admit them to breeding; to be taught to read and write was more than came to their share; they might be ignorant bumpkins and clowns if they pleased. This so wrought upon the child, that afterward he desired to be taught; would come himself to his mother to learn, and would not let his maid be quiet till she heard him his lesson. I doubt not but some way like this might be taken with other children; and, when their tempers are found, some thoughts be instilled into them that might set them upon desiring of learning themselves, and make them seek it, as another sort of play or recreation. But then, as I said before, it must never be imposed as a task, nor made a trouble to them. There may be dice and playthings, with the letters on them, to teach children the alphabet by playing; and twenty other ways may be found, suitable to their particular tempers, to make this kind of learning a sport to them.

—Beating, and all other sorts of slavish and corporal punishments, are not the discipline fit to be used in the education of those who would have wise, good, and ingenious men; and therefore very rarely to be applied, and that only on great occasions, and cases of extremity.

EASY EXPERIMENTS IN ELEMENTARY CHEMISTRY.

SECTION IV.—*Chemical Affinity—Acids, Alkalies, and Salts.*

CHEMICAL Affinity is that force which, acting between the atoms of different substances, binds them together and forms compound bodies, which latter have properties entirely different from those of either constituent.

In order to facilitate the action between the atoms, we generally present the substances to each other in the condition of fluids.

As the intensity of this force varies greatly with the different elements between which it acts, it often happens that a compound body is decomposed by the presentation of some substance which has an affinity for one of its constituents stronger than the force which held this latter to its associates. Such an example is said to be one of *single elective affinity*.

Exp. 24. Fill a large test-tube one-third full of water; pour on about one-fourth as much sweet-oil: observe that they keep entirely separate. Now add a little ammonia and shake the mixture. The oil no longer comes to the top. A chemical union has taken place between the ammonia, the oil, and the water, and the result is a solution of soap.

If a little sulphuric acid be now added, the oil slowly returns to the top. The acid by its stronger affinity for the ammonia has taken it from the soap, and the oil is restored to its natural condition.

It frequently occurs that when two compounds are presented to each other under favorable conditions, a mutual decomposition is the result: a constituent of each compound combining with one of the other, thus forming two new compounds. This is called an example of *double elective affinity*.

Exp. 25. Prepare a solution of acetate of lead, using fifteen or twenty times as much water as salt. Filter, if necessary, to make it clear. Add to the clear solution sulphate of soda. A white precipitate is formed, which is sulphate of lead, while the solution becomes acetate of soda.

One of the many cases of combination in which water plays an important part, is given in the following familiar experiment.

Exp. 26. Place a small lump of quicklime in a saucer, and pour on it one-half or two-thirds of the same volume of water. The lime will become hot and crumble. The powder which remains after the water has disappeared is a definite compound of water and lime, known as the *hydrate of lime*.

Heat is often applied to insure chemical union. Even when all other conditions are favorable, no reaction is noticeable until by the application

of heat a certain temperature is reached, when the union is rapid and complete.

Exp. 27. Prepare a solution of nitrate of strontia, using thirty or forty times as much water as salt. To a portion of this solution, in a test-tube, add a little of the solution of sulphate of soda. If the strontia is sufficiently dilute, no change is perceptible until heat is applied. When brought to the boiling point the white precipitate appears which indicates the formation of sulphate of strontia.

To boil liquids in a test-tube, some kind of a holder for the tube is necessary. A strip of tin half an inch wide and six or eight inches long can be converted in a moment into an efficient and safe holder. If nothing else is at hand, a stout strip of paper may be used, by folding the paper once around the tube and holding the ends between the thumb and finger. The tube, when held in the flame, should be considerably inclined.

The Properties of Acids.

The popular idea of an acid is that of a liquid with a more or less sour taste, and a property of destroying or changing vegetable colors. To the chemist, an acid is a compound having the power of forming a union with a certain class of bodies known as *bases*, and thereby forming *salts*. This is the only unvarying characteristic of acids. Many acids possess a sour taste, and nearly all will change the blue of litmus to red.

Litmus is a coloring matter obtained from the fronds of lichen. The blue solution obtained by pouring hot water upon the purple cabbage will answer equally well. The cabbage should be cut up, and the water allowed to stand on it about an hour.

Exp. 28. To a wine-glass of water add a few drops of lemon-juice or vinegar, and test the solution with a slip of blue litmus-paper, or by pouring a little of the acid mixture into another glass of water which has been colored slightly blue by the cabbage or litmus solution.

Exp. 29. Try in the same manner a glass of water that has been acidified by a single drop of nitric or sulphuric acid.

Bases.

Bases are chemical compounds which unite with acids to form salts. The bases that possess this property in the most marked degree are called *alkalies*. They have, besides the above-mentioned property, the power of restoring the blue color to litmus that has been reddened by an acid. The chief alkalies are potash, soda, and ammonia.

Exp. 30. Hold a slip of reddened litmus-paper, prepared as in *Exp. 28* or *29*, while still wet, over the mouth of an open ammonia bottle.

Exp. 31. To a wine-glass of water add a little common washing-soda,

and test the solution with reddened litmus-paper. It will indicate the presence of an alkali.

Neutralization of Acids and Alkalies.—Salts.

Exp. 32. To a wine-glass of water add about a teaspoonful of nitric acid. To an equal amount of water in another glass, add a teaspoonful of ammonia. Test the contents of both glasses to show acid and alkaline properties. In a third glass pour some of each solution, and test with litmus-paper. If the mixture fails to redden the blue paper, try a red one. If it shows acid properties, add a little of the ammonia solution. If it prove to be alkaline, add the acid solution. Repeat the experiment carefully until the new mixture has no marked effect upon either red or blue litmus. When both acid and alkali are thus neutralized a *salt* has been formed, which in this case is nitrate of ammonia.

Pour the solution into an evaporating dish, and drive off the water by a gentle heat. The slender crystals of the salt will remain in the dish.

A CONVENTION of American Philologists will be held in Poughkeepsie, New York, commencing on Tuesday, July 27th, next, and continuing in session for several days. A circular, bearing the names of nearly a hundred college presidents, professors, and other prominent educational men, has been issued, inviting the attendance of the friends of philological studies and investigation. Measures will be taken at the meeting to complete the organization of a permanent society. Papers on different branches of Philology by distinguished American linguists will be read and discussed. The time that may remain to the convention will be devoted to the discussion of the following, among other questions, relative to the position which the Study of Language should occupy in our educational system, to the best methods of Philological Instruction, and to the promotion of Philological Literature in America :

- (1.) How much of the time in a Collegiate course of study should be given to the study of Language?
- (2.) How much of this time should be devoted to the study of Modern Languages?
- (3.) Should the study of French and German precede that of the Latin and Greek Languages?
- (4.) What position should be given to the study of the English language in our Colleges and other high schools of learning?
- (5.) What is the most efficient method of instruction in the Classical Languages?
- (6.) What is the best system of pronouncing Latin and Greek?
- (7.) Should the written accent be observed in pronouncing Classical Greek?
- (8.) What more efficient measures can be taken to preserve from destruction the Languages of the Aboriginal Indians of America?

APRIL, 1869.

A CHEAP CURE FOR A GREAT EVIL.

AN examination of the school statistics of that portion of our country which has longest enjoyed the advantage of public schools, and done most for them—the States north of the Ohio and east of the Mississippi—shows that the school-population, the school-enrolment, and the average school-attendance bear to each other, in round numbers, the ratios of seven, five, and three.

The seating-capacity of the public school-houses can only be guessed at; this important item of school statistics being omitted from all the official reports, except in the case of Wisconsin. That it is sadly insufficient is a matter of general complaint. We should estimate the number of school-sittings as sufficient for not much more than half the school-population—not the legal school-population, but the children of sound mind and body, between six and sixteen years of age, who are not educated at home or in private schools. Perhaps it does not largely exceed the average attendance: the excessive crowding of the schools of the larger cities and many rural districts, nearly if not quite making up for the empty seats in other places.

The irregular attendance of the great mass of nominal pupils is owing, we believe, very largely to insufficient accommodation. Soon after commencement, schools frequently if not generally have more pupils than there is room for—many more than the teachers can successfully instruct. As a natural consequence, the children make little progress in their studies. A day's absence now and then is found to occasion practically no great loss to the pupil, at least no such loss as theoretically there should be. The result is, that parents soon come to place a very low value on school-time—which too often, we are sorry to say, is quite up to its actual value. If there is an errand to be run, or a little household

work to be done, the child is kept at home for the day ; perhaps permanently, if the work is such as to require daily attention. This happens so frequently that in a little while the schools, though reduced to a good working-number, are so demoralized by constant losses that very little effective work can be done either by teachers or pupils. Half the time the school may go abegging for scholars, simply because there were too many to begin with—a practical paradox whose truth few teachers will fail to recognize.

To sum up : The public schools, as managed at present, are capable of doing, at best, only about half the work that needs to be done ; fully a third of the educable children of the most favored States are not reached at all by the public schools ; while as large a number of nominal pupils are in school for so brief a period each year that the good they receive is offset by the hurt they do by hindering the remaining pupils who attend school with tolerable regularity.

It is clear, therefore, that the capacity and efficiency of the schools need to be doubled. To double the number of school-houses and teachers is simply impossible. The people would not, perhaps could not, bear the expense. Not to do it, or something that will secure the same result, is to deprive millions of children of the instruction which the country can ill afford to have them go without. The problem to be solved, then, is to double the capacity and working force of the schools without incurring a corresponding increase of expense. We think that the solution can be effected, or an approximation to it certainly, without any addition to the already excessive school-taxes.

Before stating our plan, it will be necessary to notice a school reform lately begun in Germany ; that is, the abolition of all afternoon classes. The reform was brought about, unintentionally, in this way. For some time it has been experimentally optional with the head-masters to have two sessions a day or only one. The school examinations of last summer, to the surprise of many, proved that the progress made by the pupils in the different schools was in inverse ratio to the length of the daily sessions beyond the few morning hours. That is, in the schools which had only a forenoon session, the pupils showed a vigor and an eagerness to learn, that had never been known before, and their progress was in keeping with their keen and energetic assiduity. More, and more profitable, work was obtained with the half-day sessions, than when the children were

confined all day. This result is just what might have been expected. It is simply impossible for children (or adults either) to do effective brain-work six hours a day. Where so many hours of study are required, the children either idle away a large part of the time, or else break down. The latter, fortunately, is a rare occurrence,—self-deception serving in most cases to prevent self-destruction. Children think they are studying—and the teachers too, for that matter—when in fact they are merely looking at their books.

Assuming the German experiment to be conclusive and reliable, which there is little reason to doubt; and that children will learn, in the long run, as much in one session as they now do in two, the solution of our problem seems to be easy. It is this: Separate the pupils into two divisions or grades, the first to attend in the forenoon, the second in the afternoon. The result, we think, would be, *first*, a very great increase in the school enrolment—at least, such increase would be possible; *second*, a still greater increase in the average attendance; *third*, a considerable increase in the progress of the pupils. Many parents who cannot spare their children all day, could easily make shift to allow them half the day for schooling. Thus the fact that the children would be at liberty half the time would not only allow more children to go to school, but would largely prevent the irregularity and tardiness so justly complained of by teachers and school officers. The numberless little employments which now serve to keep children so frequently at home a part or the whole of a day, might easily be attended to during the free-hours,—and, we believe, would much less often be suffered to interrupt school exercises.

A plan so simple and easily tried, which so fairly promises to double the capacity and efficiency of the schools without increasing their cost, or requiring the erection of new school-houses, would, we believe, receive very little opposition,—except, perhaps, from the lazy class of parents whose ideal of a school is a place to send their children to keep them out of the way; and the selfish class, who do not care how many children are cheated out of their just share of school privileges, so long as their own children seemingly or actually receive the lion's share.

If the parents of any ward or district preferred it, the boys and girls might be taught separately, by giving one session each day to the former, and another to the latter. In this case, it would be necessary to appoint special occasions when the boys and girls would be brought into direct

competition : this being needed to keep up a spirit of emulation which, with the young, is perhaps the strongest incentive to study that can be made use of. For example, one day each week might be set apart for competitive reviews or examination on the week's work,—the boys' classes being pitted against the corresponding girls' classes. Or, half of each division of the school might be examined one week, and the other half the week following, the unemployed pupils being allowed a holiday. The interest which these occasions would excite among the children could hardly fail to reach the parents, and thus, in a manner, break up the indifference with which parents generally regard the schools.

Whatever the details of the scheme might be, and it is capable of infinite variation, we are persuaded that its advantages would greatly exceed the possible disadvantages. It is at least worthy of trial by communities conscious of the present inadequacy of the public schools to educate all the children which, unless so reached, must grow up in comparative ignorance.



THE MONTH.

THERE is a point worth thinking about in the following criticism of ordinary school-instruction, which we find in *RUSKIN'S* recent *Lectures on Art*. The latter part of the criticism is especially applicable to American teaching. We are beginning to appreciate rightly the advantages of science teaching ; but, unfortunately, have not yet learned to know and appreciate scientific teaching. We make our pupils begin where the man of science ends his studies—with systems, principles, and laws : all well enough in themselves, indeed very necessary in their proper time and place ; but they are out of place, because incomprehensible, where we put them, at the outset of instruction. We teach science as we teach literature, by authority, not by investigation ; the character of minerals, like the character of Latin words, by somebody's description of them. And worse than that, we teach their chemical constitution before the pupil can tell them by sight, or has ever made a salt.

"Our literary teaching," says Mr. Ruskin, "has long been economically useless to us, because too much concerned with dead languages ; and our scientific work will yet, for some time, be a good deal lost, be-

cause scientific men are too fond or too vain of their systems, and waste the student's time in endeavoring to give him large views, and make him perceive interesting connections of facts ; when there is not one student, no, nor one man, in a thousand, who can feel the beauty of a system, or even take it clearly into his head ; but nearly all men can understand, and most will be interested in, the facts which bear on daily life. Botanists have discovered some wonderful connections between nettles and figs, which a cowboy who will never see a ripe fig in his life need not be at all troubled about ; but it will be interesting to him to know what effect nettles have on hay, and what taste they will give to porridge ; and it will give him nearly a new life, if he can be got but once, in a spring-time, to look well at the beautiful circlet of the white nettle-blossom, and work out with his schoolmaster the curves of its petals, and the way it is set on its central mast. So the principle of chemical equivalents, beautiful as it is, matters far less to a peasant boy, and even to most sons of gentlemen, than their knowing how to find whether the water is wholesome in the back-kitchen cistern, or whether the seven-acre field wants sand or chalk."

ONE of the English Commissioners of Education is the scholarly essayist and poet, Matthew Arnold. His latest Official report contains the following observations upon compulsory education, no small part of which applies as well to this country as to England. "I imagine," he says, "that with the newly awakened sense of our short-comings in education, the difficult thing would not be to pass a law making education compulsory : the difficult thing would be to work such a law after we had got it. In Prussia, which is so often quoted, education is not flourishing because it is compulsory ; it is compulsory because it is flourishing. Because people there really prize instruction and culture, and prefer them to other things, therefore they have no difficulty in imposing on themselves the rule to get instruction and culture. In this country people prefer to them politics, station, business, money-making, pleasure, and many other things ; and till we cease to prefer these things, a law which gives instruction power to interfere with them, though a sudden impulse may make us establish it, cannot be relied on to hold its ground and to work effectively. When instruction is valued in this country as it is in Germany, it may be made obligatory here ; meanwhile the best thing the friends of instruction can do is to foment as much as they

can the national sense of its value. The persevering extension of provisions for the schooling of all children employed in any kind of labor is probably the best and most practicable way of making education obligatory that we can at present take. But the task of seeing these provisions carried into effect should not be committed to the municipal authorities, less trustworthy with us than in France, Germany, or Switzerland, because worse chosen and constituted.

THE Pope has addressed a brief to Monsignor Le Courtier, Bishop of Montpellier, congratulating that prelate on having raised his voice "to point out the fresh snares laid against the righteous education of girls." In vain, to reassure the confidence of the Bishops, are they told that in the classes recently established, the professors have already followed a wise and prudent method for several months; in vain are they shown the protection afforded to the new system of teaching by a "very pious princess." Those guarantees, says the writer of the brief, do not in any way diminish "the vice of an institution which is preparing for society, not good mothers of families, but women puffed up by vain and empty science;" and do not in any way remove the perfidious ability with which religious education is deprecated in such a manner that error is looked upon as a condition not inferior to truth. "Every one must deplore," adds the brief, "that to the means hitherto employed to corrupt the minds of young men, are joined institutions of a nature to pervert the faith of young people of the other sex." The Bishop of Montpellier is in consequence exhorted to oppose with all his might, and with the aid of his venerable brethren and all sincerely pious men, "an evil so great that it menaces, at the same time, religion, the family, and the country."

THE movement for the higher education of women is active in Scotland. Last winter Prof. Masson delivered a course of lectures in Edinburgh on English Literature to ladies. Ninety-four, out of a class of two hundred and sixty-five, obtained certificates for written essays and answers at an examination. A similar course was delivered at Glasgow. This year three courses, of forty lectures each, have been going on in Edinburgh; one by Prof. Masson on English Literature; another by Prof. Fraser on Logic and Mental Philosophy; and the third on Experimental Physics, by Prof. Tait. From such cultivation, says the London *Athenæum*, a harvest of happy results may be reasonably expected.

EDUCATIONAL INTELLIGENCE.

AT the meeting of the trustees of the Peabody Educational Fund in Baltimore, Jan. 21st, Mr. Wetmore, treasurer, and Dr. Sears, general agent, submitted their reports of operations during the past year. Mr. Wetmore reported the fund in excellent condition. The million dollars originally given in United States bonds, have been exchanged for registered bonds, which have increased in value by the rise in public securities at least \$25,000. By the terms of the gift, Mr. Peabody stipulated that 40 per cent. of the principal might be used in establishing schools in the South; but so judiciously has the business been managed that it has not been found necessary to go beyond the interest which has accrued; the principal remains untouched. The report of Dr. Sears embraced many details of the establishment of schools. His operations last year were mainly confined to Tennessee and Arkansas. In the latter named State he established schools at Little Rock, Camden, Napoleon, Fort Smith, and at other points. He found the people ready and anxious to assist in carrying out the object of the gift. The schools which he has established, have generally been aided by a gift of from one to two-thirds the amount necessary to begin them, the remaining sum being raised by the citizens of the vicinity. Dr. Sears's manner of proceeding has been to meet and converse with the leading citizens of the different neighborhoods which he visited, and then, explaining to them the possibility of educating all their youth with but little addition to the expense required to educate a few by sending them North, he has aroused a general feeling of interest in educational matters, which invariably results in raising a good subscription. Of the schools already established many will be self-sustaining at the end of the present year.

INDIANA.—The Sixteenth report of the State Superintendent of public instruction gives the following statistics in relation to the educational condition and progress of the State. Number of children between six and twenty-one years of age, 591,661, an increase for the year of 14,652; the number of school districts in which schools were taught, 8,453, leaving 141 districts without schools. The number of children enrolled in the schools was 436,736, of whom some eleven thousand attended High-schools. The average daily attendance was 283,340, over 64 per cent. of the enrolment. The increase for the year in the number in attendance was 20,946; in the average attendance, 17,228. The average length of schools was 87 days, an increase of seven days. The number of teachers employed was—men, 6,462; women, 4,236: an increase of 450 in the former, and 195 in the latter. This would give an average enrolment of about 40 pupils to a teacher, and an average attendance of 26. The average wages of male teachers in primary schools was \$37 a month; of female teachers, \$28.40,—an increase of twenty cents a month to the latter. In high schools the wages were respectively \$64.60, and \$42—the men in this case losing \$4.80 a month, while the women gained \$4.60. The average cost of each pupil was \$1.20 a month, the whole expense of tuition being \$1,474,832, an increase of \$212,148. The school property of the State is valued at nearly six million dollars, the

increase for the year being about three-quarters of a million. There were built during the year, 424 school-houses, sixty more than were built in 1867. The number of school-houses reported was 8,403, which number should be increased by about 70, to make up for Johnson county, which made no report. Of the school-houses reported, 74 were stone; 592 brick; 6,906 "frame;" and 831 log-houses. In the last-named there was a commendable decrease of 232, while each of the others shows an increase. The amount of "Special School Revenue" expended within the year, was \$1,050,139, an increase of \$195,377. The township libraries contain 282,892 volumes, of which about one-half were taken out for use during the year. The entire school-fund of the State is \$8,259,341.34.

GERMANY.—In a letter to the *Methodist*, Dr. HURST copies from a German College paper, a statistical table of University attendance, "simplified and corrected as far as material had come to hand," to apply to the winter term of 1868-9:

UNIVERSITIES.	No. Students in attendance.	No. Professors and other Instructors.	No. Students to each Instructor.	UNIVERSITIES.	No. Students in attendance.	No. Professors and other Instructors.	No. Students to each Instructor.
Vienna	3,074	191	16.1	Münster . . .	444	25	17.7
Berlin	2,997	178	16.83	Greifswald . .	452	56	7.9
Prague	1,442	93	15.5	Jena	432	62	7
Leipzig	1,345	122	11	Erlangen . . .	392	46	8.5
Munich	1,217	124	9.8	Innsbruck . .	391	50	7.8
Bonn	939	102	9.2	Marburg . . .	365	61	6
Breslau	923	89	10.4	Giessen	314	59	5.3
Halle	859	81	10.6	Freiburg . . .	307	47	6.4
Tübingen . . .	845	73	11.6	Berne	262	70	3.7
Göttingen . . .	824	110	7.5	Rostock	245	36	6.9
Heidelberg . .	780	110	7.09	Kiel	223	44	5
Dorpat	595	58	10.3	Zürich	177	68	2.6
Würzburg . . .	565	57	9.9	Basle	93	51	1.82
Gratz	554	54	10.3	Braunsberg . .	48	8	6
Königsberg . .	448	69	6.5				
					21,542	2,194	9.8

In the twenty-three German Universities there are:

FACULTIES.	No. Students in attendance.	No. Professors and other Instructors.	No. Students to each Instructor.
23 Theological	3,556	203	17.5
21 Law	3,794	247	15.36
11 Medical	3,353	453	7.4
23 Philosophical	4,670	830	5.6
	15,373	1,733	8.8

TURKEY.—A new law relative to public instruction has lately been laid before the Council of State at Constantinople. A great number of elementary and higher schools and colleges are to be established by this law at the expense of the State in various parts of the country, and a university is to be founded at Constantinople. Primary instruction will be gratuitous and compulsory. In Bulgaria and other Christian provinces, the language used in the primary schools is to be that of the majority of the people. In the higher schools, however, the instruction will be given in Turkish. Pupils are to be admitted without distinction of religion or nationality. The model to be followed in organizing these schools is the lyceum, founded last summer, at Galata, by the French ambassador. This last-mentioned school is thoroughly French in plan and management. The principal, vice-principal, secretary, and many of the masters, are Frenchmen, who received their appointment on the nomination of the French minister of Public Instruction. The school, therefore, cannot but tend to propagate French ideas generally. For this reason, the Pope, the Greek Patriarch, and the Sheik-ul-islam, the head of Mohammedanism in the Empire, unite in discountenancing it: the two former denouncing it as godless; the latter, with greater moderation, merely calling upon the faithful to contribute toward the establishment of a rival school where only Mohammedan boys shall be received, and where all the boys shall be taught out of the Koran. Notwithstanding this opposition, the school has made a good start. The applications for admission have largely exceeded the capacity of the school. The great difficulty of organizing into classes a multitude of youths speaking many different languages, and varying with the utmost irregularity in attainment otherwise, has compelled the admission of but sixty pupils at a time. At the latest accounts only about two-thirds of the full number had been admitted. These, classified in respect to nationality and religion stand thus: Mus-sulmans, 156; Armenians, 82; Greeks, 42; Bulgarians, 46; Jews, 41; Roman Catholics, 36. The school is designed to accommodate about eight hundred.

INDIA.—In forming literary and scientific institutions, the heathen Hindoos themselves take the initiative. At the head of these institutions stands the Benares Institute, consisting, like the Institute of France, of five classes: and now Lahore is to be endowed not only with an institute after the pattern of the one at Benares, but also with a university, in which all the lectures will be given in Hindustani, that *lingua franca*, which is spoken and understood throughout India, which has a literature of its own, and is perhaps the most powerful instrument of civilization in the country. Subscriptions toward the University of Lahore are flowing in at such a rate that if the Hindoos and the several nations of Europe were classed in respect to intelligence and patriotism, as measured by their liberality in founding a new university, the heathen Hindoos would stand at the top. The Government schools are less popular than they might be, owing to the mode of imparting instruction, which is European, since most of the teachers are European. This is the opinion of M. Garcin de Tassy, as expressed in the opening lecture of his course of Hindustani, at the Imperial School of Oriental Living Languages, Paris, last December. In support of this statement, he cites the opinion of a native journal, which insists that to command the attention of the natives, the

teachers must conform to the native mode of expression and illustration. Each country has its own ideas and own mode of expressing them. Orientals are fond of allegory and comparison; they dislike that simplicity of expression which is admired in Europe, and European ideas have no chance of acceptance when conveyed in plain language. Thus in teaching the history of Hindustan, a list of names and dates, such as elementary books commonly present, will never find learners among the Hindoos. The main fact must be presented along with the attendant circumstances, which set them off in an attractive and flowing style. Notwithstanding this objection, the foreign schools have succeeded beyond expectation. For instance, when the University of Calcutta was opened, there were many "old Indians" who believed that the experiment would prove a complete failure, and that the natives would refuse education at English hands. The difficulty actually experienced is, that the number of students grows too large for the resources of the institution. Over two thousand candidates entered themselves for examination last fall—ten times the number that entered ten years ago. The University has steadily gained in the estimation of the natives, as its increase in numbers would indicate.

CURRENT PUBLICATIONS.

PROFESSOR GRAY has added to his series of botanical text-books a new work¹ intended to furnish beginners with an easier introduction to the plants of the United States than is afforded by his well-known *Manual*. The new book is at once simpler and more comprehensive than the *Manual*. The language is somewhat less technical; the more recondite, and, for beginners, less essential characters have been omitted, with most of the obscure, insignificant or rare plants, which the author believes not likely to be met with or examined by students, or too difficult for beginners in that they require very critical study. On the other hand, the common herbs, shrubs, and trees of the Southern States are given, as well as those of the Northern and Middle States, and, also, all the plants commonly cultivated or planted for ornament or use, exotic as well as indigenous. This book, bound up with the author's "First Lessons," makes the best introductory text-book of Botany² for the better class of schools, and for private students, that we know.

THE African traveller, Sir Samuel W. Baker, has written a story for boys, which he calls "Cast up by the Sea,"³ the hero being introduced as an infant washed ashore from a ship wrecked on the coast of Cornwall. The career thus stormily begun is an adventurous one by land and sea; and one that can hardly fail to interest a good many of the "boys, from eight to eighty," to whom the book is dedicated. It is a pity that so interesting a book should be disfigured by such frightful "illustrations."

¹ Gray's Field, Forest, and Garden Botany.—² Gray's School and Field-Book of Botany. By ASA GRAY, Fisher Professor of Natural History, Harvard College. New York: Ivison, Phinney, Blakeman & Co. 12mo, cloth; pp. 386. pp. 236-386.

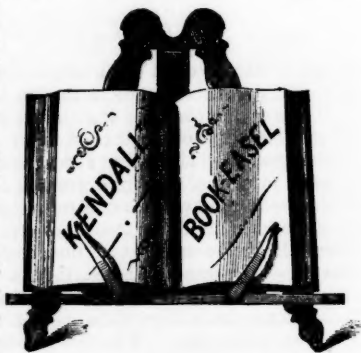
³ Cast up by the Sea; or, The Adventures of Ned Grey. By SIR SAMUEL W. BAKER. New York: Harper & Bros. 12mo, cloth, 75 cts.

THE term *hand-book*, so commonly misapplied, is applicable in its strictest sense to Dr. Hartshorne's *Compendium of Human Anatomy and Physiology*.¹ For the use of medical students in the lecture or dissecting room, and for those who, while studying these subjects in detail, desire to have at hand for reference or for memorizing, all that is most essential in Human Anatomy, and most positive and important in Physiology, this book will prove very convenient and useful. Lest some stupid master may undertake to make a school-book of it, we will add that it is not at all adapted to that purpose, as it was not intended for it.

KENDALL'S BOOK-EASEL.

THE accompanying wood-cut represents a book-rest constructed on the plan of Kendall's Black-board Easel, so widely and favorably known for its convenience and portability.

Of the advantage of a support for one's book while reading,—a support that will hold the book open and at the proper angle for easy vision, thus relieving the hands from the constraint and fatigue of doing what a bit of wood will do better—it is not necessary to argue. Everybody admits it, at least everybody that has ever tested the convenience of a book-rest, or given a thought to the causes of the defective eyesight so deplorably frequent among students. We hope to see the day, and that right speedily, when a book-holder will be thought as needful to the school-boy as a slate is now. One thing, perhaps more than any other, has prevented this general use of book-easels notwithstanding their admitted usefulness, and that is the inconvenience of carrying them. They have always been unmanageable, it has seemed to us, unnecessarily clumsy. As reading-stands to set on the table, they have answered very well; but since they could not easily be carried about, or conveniently held in the hand, they have been considered an occasional luxury, not an every-day necessity. In the matter of portability, Kendall's Easel is entirely satisfactory. It consists of three standards united at the top by a metallic head, which allows the outside standards to open like the legs of a compass, while the middle leg turns back. To this tripod is attached the shelf which carries the fingers or springs for holding the book open. The whole can be "unshipped" in a second, and folded flat, as easily as a carpenter's rule.



¹ A Hand-Book of Anatomy and Physiology for the use of Students. By HENRY HARTSHORNE, A. M., M. D. Philadelphia: Henry C. Lea.